

download required remote control data to the remote controller and set the data in the remote controller.

As described above, in accordance with the present invention, required remote control data can be automatically downloaded to and set in the remote controller via the Internet without a complicated remote control setting process for the conventional integrated remote controller, so the remote controller of the present invention can be easily and conveniently used as a remote controller for an apparatus whose control is desired.

Industrial Applicability

The present invention can be applied to a system and method that is able to download remote control data for required apparatuses to a remote controller via the Internet so as to allow a single remote controller to be used for a variety of apparatuses.

Claims

1. A system for downloading remote control data using the Internet, comprising:
 - a server unit (10) having remote control data;
 - a client Personal Computer (PC) (30) processing the remote control data;
 - a remote control code transmitting system (40);
 - the Internet (20) connecting the server unit (10), the client PC (30) and the remote control code transmitting system (40) to each other; and
 - two remote controllers (50 and 50') connected to the system in

wired and wireless manners, respectively;

wherein the server unit (10) comprises

a database server (11) having the remote control data for apparatuses to be remotely controlled and performing responses and data transmission with respect to various requests,

an authentication system (12) connected to the database server (11) to perform user authentication, and

a billing settlement system (13) connected to the database server (11) to update billing information of users;

wherein the client PC (30) comprises

a first interface unit (31) requesting the server unit (10) to transmit the remote control data through the Internet 20 and receiving transmitted remote control data,

a temporary storage space (32) temporarily storing the received remote controller data,

a data analysis unit (33) determining a transmission method of the remote control data, and

a second interface unit (34) transmitting the remote control data in a wired manner;

wherein the remote control code transmitting system (40) comprises

a third interface unit (41) receiving transmitted remote control data through the first interface unit (31),

a temporary storage space (42) temporarily storing the received data, and

a fourth interface unit (43) transmitting the stored remote

control data to the remote controller (50') in a wireless manner;

wherein the remote controllers (50 and 50') each comprise

a terminal (51) connected to the client PC (30) in a wired manner to receive the remote control data, or transceiver unit (54) receiving the remote control data from the remote control code transmitting system (40) in a wireless manner,

a control unit (52) converting the transmitted data into data in a required manner, and

a storage unit (53) storing the data converted by the control unit (52).

2. The system as set forth in claim 1, wherein the second interface unit (34) of the client PC (30) is connected to the terminal (51) of the remote controller (50) with a universal serial bus.

3. The system as set forth in claim 1, wherein the remote controller (50') is a mobile communications terminal having a remote control function.

4. The system as set forth in claim 1 or 3, wherein the remote controller (50') further comprises:

a first interface unit (31) requesting the server unit (10) to transmit remote control data and receiving transmitted remote control data; and

a temporary storage space (32) temporarily storing received remote control data.

5. A method for downloading remote control data using the Internet, comprising:

the 1st step of a client PC (30) requesting remote control data, which is selected by a user to download, from a server unit (10) through a first interface unit (31);

the 2nd step of the client PC (30) undergoing user authentication in the server unit (10);

the 3rd step of the client PC (30) receiving remote control data transmitted from the server unit (10) in response to the request through the first interface unit (31) ;

the 4th step of the client PC (30) temporarily storing the received remote control data in the temporary storage space (32);

the 5th step of the client PC (30) determining whether the remote control data is transmitted in a wired or wireless manner through the use of a data analysis unit (33);

the 6th step of the client PC (30) transmitting the remote control data to a terminal (51) of the remote controller (50) through a second interface unit (34) if it is determined that the data is transmitted in a wired manner;

the 7th step of the remote controller (50) receiving the remote control data from the terminal (51);

the 8th step of the remote controller (50) converting the remote control data into data in a required manner through a control unit (52); and

the 9th step of the remote controller (50) storing the converted remote control data in a storage unit (53).

6. The method set forth in claim 5, wherein the 6th and 7th steps are replaced by the following steps, if it is determined that the remote control data is transmitted in a wireless manner at the 5th step:

the 5-1ST step of the client PC (50) requesting the server unit (35) to transmit the remote control data to the remote control code transmitting system (40) through the first interface unit (31);

the 5-2nd step of the remote control code transmitting system

(40) receiving the remote control data transmitted from the server unit (10) through the third interface unit (41);

the 5-3rd step of the remote control code transmitting system (40) storing the transmitted remote control data in the temporary storage space (42); and

the 6-1st step of the remote control code transmitting system (40) transmitting the stored remote control data to the transceiver (54) of the remote controller (50') through the fourth interface unit (43) in a wireless manner.

7. The method set forth in claim 5, wherein the 2nd step further comprises:

the 2-1st step of a database server (11) receiving authentication information from the client PC (30);

the 2-2nd step of the database server (11) transmitting the authentication information to the authentication system (12);

the 2-3rd step of the authentication system (12) performing user authentication using the authentication information;

the 2-4th step of the authentication server (12) transmitting authentication results to the database server (11); and

the 2-5th step of the database server (11) determining whether user authentication is successful based on the transmitted authentication results.

8. A method for downloading remote control data via a mobile communication terminal having a remote control function, comprising:

the 1st step of a remote controller (50') requesting remote control data, which is selected by a user to download, from a server unit (10) through a first interface unit (31) ;

the 2nd step of the remote controller (50') undergoing user

authentication in the server unit (10);

the 3rd step of the server unit (10) transmitting the selected remote control data to a remote control code transmitting system (40);

the 4th step of the remote control code transmitting system (40) receiving the transmitted remote control data through a third interface unit (41);

the 5th step of the remote control code transmitting system (40) temporarily storing the received remote control data in a temporary storage space (42);

the 6th step of the remote control code transmitting system (40) transmitting the remote control data to a transceiver unit (54) of the remote controller (50') through a fourth interface unit (43) in a wireless manner;

the 7th step of the remote controller (50') receiving the transmitted remote control data through the transceiver unit (54);

the 8th step of the remote controller (50') converting the received remote control data into data in a required manner through a control unit (52); and

the 9th step of the remote controller (50') storing the converted remote control data in a storage unit (53).